

Remarks

Claims 1, 5-7, 17, and 20-21 are pending in the present application. Reconsideration in view of the following remarks is respectfully requested.

Claims 1-7 and 17-21 are rejected under 35 U.S.C. 103(a) over Petrick (US 5,712,870) in view of Wright et al. (US 5,990,734), hereafter "Wright." This rejection is defective because Petrick and Wright, taken alone or in combination, fail to teach or even suggest each and every feature of the present invention. In addition, the Examiner has failed to establish a *prima facie* case of obviousness in support of the rejection under 35 U.S.C. 103(a).

Independent claim 1 sets forth an improved power ramping method comprising: switching on the power amplifier after an end of a prior packet reception period; and ramping modulation signals supplied to the up-converter mixers upon initiation of a new packet transmission, **wherein the modulation signals are in-phase and quadrature-phase signals and wherein the modulation signals are ramped by monotonically scaling a set of digital words representing the in-phase and quadrature-phase signals.** Independent claims 17 and 21 include similar features.

Applicant respectfully submits that Petrick fails to disclose or suggest, among other features, "ramping modulation signals supplied to the up-converter mixers upon initiation of a new packet transmission, wherein the modulation signals are in-phase and quadrature-phase signals." Further, Petrick fails to disclose or suggest that the modulation signals are ramped by "monotonically scaling a set of digital words representing the in-phase and quadrature-phase signals."

In the Office Action, the Examiner asserts that Petrick discloses a "pair of up-converter mixers (Fig. 2/a pair of mixers 72 with up-converter RF/IF 30) for an improved power ramping method." This is incorrect. In particular, the up-mixers 72 located within the quadrature IF modulator/demodulator 42 are used to modulate, **in a conventional manner**, the I and Q components of the data to be transmitted. The I and Q components of the data to be transmitted are modulated in the up-mixers 72 using a modulating signal and a signal 90 degrees out of phase with the modulating signal (see, e.g., col. 5, lines 31-43, col. 6, lines 39-46, and Fig. 2). Contrary to the present invention, however, the modulating signal and the signal 90 degrees out of phase with the modulating signal generated within the quadrature IF modulator/demodulator 42 of Petrick **are not ramped** before being supplied to the up-mixers 72. **Indeed,**

**there is absolutely no disclosure in Petrick teaching or suggesting the ramping of these modulating signals.**

The Examiner also alleges that Petrick discloses "ramping modulation signals supplied to the up-converter mixers upon initiation of a new packet transmission, i.e., power ramping technique is controlled by preamble field within a transmission/receiving packet message (as shown in FIG. 1)." This statement is incorrect and completely without merit. First, it should be noted that Petrick does not provide any explanation of how the "power ramping" information included in the preamble of the data header of a "typical" message as shown in FIG. 1 is used within the transceiver. Second, Petrick does not teach or suggest that the "power ramping" information is used to ramp the modulating signals provided to the up-mixers 72 within the quadrature IF modulator/demodulator 42. Clearly, the only suggestion to do so is found in the present patent application - the Examiner is using impermissible hindsight to support the rejection.

The Examiner further alleges with regard to Petrick that "power ramping is applied to modulation signals of a new packet transmission accordingly before submitting the signals to the up-converter mixers using the CRCs for checking the value of packet length received (see col. 9/line 45 to col. 10/line 4)."

This statement is also incorrect and without merit. In particular, the section of Petrick cited by the Examiner does not provide any discussion related to power ramping as alleged by the Examiner.

The Examiner further asserts that "Petrick discloses in the transmit side, the spread signal from spreader 66, in the forms of I and Q components, may be amplified, filtered and modulated within the modulator/demodulator 42 by amplifiers 68, filters 70 and mixers 72 ..." Contrary to the present invention, however, there is no suggestion in Petrick that the modulation signals supplied to the mixers 72 are "ramped" in any manner by amplifiers 68.

The Examiner also alleges that Petrick discloses the ramping of modulation signals by monotonically scaling a set of digital words representing the in-phase and quadrature-phase signals. In particular, the Examiner alleges that "Petrick further includes a differential phase shifted keyed (DPSK) for providing monotonically or discretely a set of digital words representing the I and Q signals (col. 6/lines 50-62)." First, it should be noted that the Applicant is not claiming that a set of digital words representing the I and Q signals is provided monotonically or discretely. Rather, Applicant is claiming that the modulation signals are ramped "by monotonically scaling a

set of digital words representing the in-phase and quadrature-phase signals." To this extent, it appears that the Examiner has mis-read this claim feature. It should also be noted that the section of Petrick (i.e., col. 6/lines 50-62) relied on by the Examiner is completely silent with regard to the ramping of modulation signals by monotonically scaling a set of digital words representing the in-phase and quadrature-phase signals as claimed.

The Examiner relies on the teachings of Wright to remedy the glaring deficiencies of Petrick. In particular, the Examiner asserts that Wright discloses the power ramping of modulated signals and that it would therefore be obvious to "modify Petrick's system with Wright's teaching technique in detecting and compensating on modulated signals by power ramping up the signals as needed before signal transmission." Applicant submits that since Petrick is completely silent with regard to the ramping of modulation signals, there is absolutely no motivation to combine the alleged teachings of Wright with the teachings of Petrick as set forth by the Examiner.

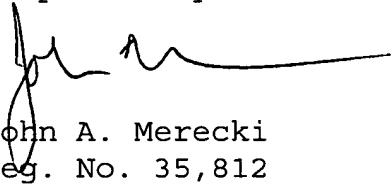
Accordingly, since Petrick and Wright clearly fail to teach or suggest each and every feature of independent claim 1 (and similarly independent claims 17 and 21), and since there is no motivation for combining Petrick and Wright in the manner

suggested by the Examiner, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. 103(a) and allowance of the claims.

Applicant also respectfully submits that claims 5-7, which depend from independent claim 1, and claim 20, which depends from independent claim 17, are likewise allowable for at least the reasons set forth above.

If the Examiner believes that anything further is necessary to place the application in condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

  
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Dated: 9/26/05

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